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LETTER OF TRANSMITTAL

DEPARTMENT OF THE INTERIOR,
OFFICE OF EDUCATION,
Washington, D. C., January, 1933.

SIR: This manuscript was prepared by Oliver R. Floyd during the time that the National Survey for the Education of Teachers was in progress. An effort was made to correlate the study with the survey and Dr. E. S. Evenden, associate director of the survey, gave attention to putting the manuscript in form for printing.

The junior high school as such is not yet 25 years old. Accordingly it is not surprising to find that the liberal arts colleges make no provision whatever for preparing teachers in it. In fact, they expect that their students will be accepted as teachers in general by the States. In some cases, however, they have added courses in education. In other States they have done this only under protest. The small size of some of the institutions makes it exceedingly difficult for them to add courses in education. This work, where required, causes the students to discontinue subject-matter courses in their upper years. Therefore the preparation of teachers by the liberal arts colleges is still a mooted question. For junior high schools, they make no special provision. Mr. Floyd found, however, that in those States which have provided for a certificate especially for the junior high school, the teachers colleges are endeavoring to prepare these people. What these students are taking, what subjects they are enrolled in, and other matters pertaining to their courses are covered by this manuscript.

I am pleased to recommend that it be published as a bulletin of this office.

Respectfully submitted.

WM. JOHN COOPER,
The SECRETARY OF THE INTERIOR. *Commissioner.*

THE PREPARATION OF JUNIOR HIGH SCHOOL TEACHERS

PLAN OF THE STUDY

It is timely and of considerable importance to pause with 20 years of experience with the institution behind us and to take stock of the extent to which junior high schools are staffed by teachers adequately prepared for their work. In approaching this problem it is evident that one of the most fundamental considerations is the preparation of the teachers in the subjects they teach. In addition to a background in the courses taught, each teacher must also possess a knowledge of the professional literature which has been developed to make more skillful the teaching act and related duties. This study surveys the training of junior high school teachers in professional courses in education as well as in subject-matter courses.

Two factors which are very influential in determining the preparation which teachers in any division of the school system bring to their work are the policies of the employing agencies of the local communities and the certificating authority of the States. By setting up minimum standards for employment and by demanding continued professional growth, educational forces of both the district and the State have it in their power to alter materially the character of the teaching corps. The following pages, therefore, consider the regulations of each of these groups as they pertain to junior high school teachers.

Teachers can secure adequate preparation only as training facilities are provided by the institutions in which they are educated. This study, then, includes an analysis of the programs of teachers colleges, universities; and colleges of liberal arts in so far as these are concerned with preparing teachers for the junior high school.

In brief, the aims of the present treatise may be stated as follows: (1) To discover the extent and quality of the preparation of junior high school teachers now in service, (2) to study critically the facilities afforded by teachers colleges and other institutions of higher learning for the preparation of these teachers, (3) to survey the requirements of State departments of education in certifying junior high school teachers, and (4) to determine the practices of local communities in selecting and administering the junior high school personnel.

SUMMARY OF RELATED STUDIES

A survey of the literature relating to the preparation of junior high school teachers reveals relatively few studies. Reports which present factual data as bases for the conclusions drawn are here presented.

Stayer¹ in 1921 secured questionnaire returns from 1,518 teachers in 99 schools representing 36 States. These junior high school teachers were recruited more frequently from the elementary school than from the senior high school. More than four-fifths were women. The teachers canvassed by Stayer were, on the whole, well trained. All but 9 per cent had normal-school or college training. Twenty-eight per cent of the teachers in 3-year schools had completed some graduate study. The 3-year schools employed graduates of colleges and of normal schools in about equal numbers. In the 2-year unit the normal-school graduates predominated, 46 per cent of the teachers being normal-school graduates as compared with 29 per cent who held college degrees.

Stayer also investigated the extent to which the work of these teachers was specialized. He found that 69 per cent of the teachers taught one subject only. There appeared to be no generally accepted combinations of two or more subjects on the teachers' programs except such natural combinations as French and Spanish, history and civics, or stenography and typewriting.

Gaumnitz² in 1925 surveyed the provisions made by training institutions to prepare teachers for the junior high school. He analyzed the contents of the catalogues of 429 colleges and normal schools. Sixty-seven per cent of the professional colleges, 48 per cent of the normal schools, and 4 per cent of the academic colleges were found to be active in training teachers for the junior high school. A school was classified as "active" if its catalogue listed even a single course as especially intended for teachers preparing for the junior high school field.

The practice of setting up curricula requiring major and minor electives was more typical of the situation in colleges than in normal schools. On the other hand, complete junior high school curricula of varying lengths were found most frequently in normal schools. Among these the 2-year curriculum predominated at the time of Gaumnitz's study. Only 3 of the 89 "active" normal schools offered a curriculum for junior high school teachers four years in length.

Approximately half of the normal schools maintained junior high school practice schools, but this was a feature of the training programs

¹ Stayer, Samuel B. The Status of Teachers in Junior High Schools. *School review*, 29: 379-387, May, 1921.

² Gaumnitz, W. H. Provisions Made by Colleges and Normal Schools to Give a Special Type of Training to Teachers of Junior High Schools. *Educational Administration and Supervision*, 11: 556-571, November, 1925.

of only 9 colleges. The study concludes with a tabulation of the professional and academic courses found in the curricula for junior high school teachers and a survey of the writings of 66 educators regarding the qualifications and characteristics which they believed junior high school teachers should possess.

Grinnell³ has more recently (1931) presented material to show the progress made by training institutions in providing facilities for the preparation of junior high school teachers in the decade since the data were collected for the study just reported. He examined the catalogues of 150 schools selected at random from every section of the country. The institutions were divided into the same groups that Gaumnitz used and the same criteria were employed as tests of the school's activity. His findings indicate that the teachers colleges and normal schools have been most active in providing curricula designed to prepare junior high school teachers. The universities and professional colleges have made some progress since Gaumnitz's study as evidenced by the 14 per cent outlining complete junior high school curricula. The colleges of liberal arts evidently have not yet become interested in this field of training. The number of teachers colleges offering 4-year curricula has increased markedly during the decade. One-fourth of these schools prescribe a full 4-year course.

Powers⁴ investigated the regulations of State departments of education affecting junior high schools. At the time of the study (1925) 6 States prescribed a type of certificate valid for teaching in this division of the school system.

Renfrow⁵ found from a study in 1927 of the programs of junior high school teachers that the median number of teaching periods per week was 29.53. In addition the teachers spent 5.37 periods (median) in study-hall duty and had 5.66 free periods each week. Teachers' judgments as to what should constitute a fair load were secured. These judgments are reported as 25 periods in classroom work, 3 to 4 periods of study-hall duty, and 8 to 10 free periods weekly.

Another study of teaching load on the junior high school level was made in 1929 by Unzicker.⁶ Questionnaires were received from 435 teachers in 16 schools. Teaching load was investigated in terms of pupil hours per week and of class size. Great variation in teaching load among the 16 schools was revealed when measured by pupil hours. General similarity in class size was found for the academic subjects (average class size ranging approximately from 25 to 30)

³ Grinnell, J. E. *Securing Adequate Training for Junior High School Teachers*. Educational Administration and Supervision, 17: 279-286.

⁴ Powers, J. Orip. *Legal Provisions Affecting the Junior High School*. School Review, 33: 280-291, April, 1925.

⁵ Renfrow, Laura J. *Teacher Load in Junior High School*. Unpublished manuscript, University of Cincinnati, 1927.

⁶ Unzicker, S. P. *Study of Teaching Load in the Junior High Schools in Wisconsin*. School Review, 37: 136-141, February, 1929.

and a somewhat smaller median size of class (about 20) in subjects such as manual arts and home economics.

Spaulding⁷ in his study in 1927 of the small junior high school includes some material pertinent to the problem at hand. This work is based upon data obtained from 80 teachers located in 19 junior high schools. The teaching load varied from 28.7 hours to 35 hours per week. The lighter loads were found more frequently in the junior-senior high schools. In the combined schools, 60 per cent. of the teachers were college graduates and 35 per cent were graduates of normal schools. In the separate junior high schools the percentages were 42.5 and 52.5, respectively. Only a little more than a fourth of the teachers had completed even a single course dealing with the junior high school.

Representative writings on the junior high school were examined by Hounchell⁸ in 1929 in developing a list of the purposes and features of the junior high school. He then tabulated 317 teaching abilities organized under 37 features. These teaching abilities are treated as training objectives and reorganized into 12 categories to render them useful as aids in constructing curricula designed to prepare teachers for the junior high school.

In the same study Hounchell, by means of a questionnaire, obtained data regarding the training of 830 junior high school teachers. The records of 1,863 teachers were available on a single item—that of total training.

Foster⁹ sent questionnaires in 1922 to about 75 superintendents of schools and to approximately 50 universities and teachers colleges. The superintendents were of cities widely distributed geographically and ranging in size from the largest municipalities to semirural communities. He found that at the time of the canvass teachers of the junior high school were drawn in almost equal numbers from the recent graduates of training institutions and from the forces of experienced elementary-school teachers. There appeared to be a demand for both groups provided they were adequately trained. The superintendents were almost unanimous in the opinion that student teaching in a junior high school should be a part of this training. There were indications that colleges and universities did not offer adequate specific training for junior high school work.

Smith¹⁰ examined in 1922 the catalogues of 380 teacher-training institutions representing all sections of the country. The following phases of activity in the training of junior high school teachers were

⁷ Spaulding, F. T. *The Small Junior High School*. Harvard University Press, 1927.

⁸ Hounchell, Paul. *The Training of Junior High School Teachers*, Nashville, George Peabody College for Teachers, 1929.

⁹ Foster, Herbert H. *Student Teaching and the Training of the Junior High School Teacher*. *Educational Administration and Supervision*, 8: 349-354, 1922.

¹⁰ Smith, Homer J. *Special Preparation for Junior High School Service*. *Educational Administration and Supervision*, 8: 512-518, December, 1922.

canvassed for each institution: Practice department, special curricula, regular course, summer course, extension course, correspondence course, special methods. Smith found that practically one-third of the States supported some activities in the preparation of junior high school teachers. The North was more active than the South. One hundred and twenty-six of the 380 institutions were active in this work.

A chapter of the Fifth Yearbook of the Department of Superintendence (1927) was devoted to a consideration of the problems of the junior high school teacher. Questionnaire replies were received from 87 cities of more than 30,000 population giving data relating to the source and preparation of teachers in junior high schools. The main facts disclosed were as follows:

(1) When junior high schools were first introduced the majority of teachers were taken from the seventh and eighth grades.

(2) This practice is being discontinued.

(3) In the majority of cities of this group where junior high schools have been established for at least five years, college graduates are now being selected to teach in the junior high school.

(4) When junior high schools were introduced into school systems the majority offered their teachers special opportunities to prepare for junior high school work. The opportunities included extension courses, lecture series, summer-school courses, leaves of absence.

(5) In 40 out of 87 cities reporting, the training required of junior high school teachers is equal to that required of senior high school teachers.

Preston¹¹ has reported upon the amount of previous teaching experience and the certification of the junior high school teachers of Berkeley, Calif., in November, 1922. At that time the median number of years of experience was 14.05. Three-fourths of the teachers had taught more than 6.9 years and one-fourth had taught more than 21.3 years. Sixty-three per cent of this group held regular secondary certificates based upon five years of collegiate training.

ADEQUACY OF THE SAMPLE

In approaching the first of the four general problems outlined above—the extent and quality of the training which junior high school teachers possess—recourse was made to the questionnaire as a method of collecting the data. In such a procedure a question of first importance is the extent to which the sample upon which the study rests represents a true cross section of the total population being studied.

Junior high school teachers employed in schools located south of the Ohio River and east of the Mississippi are excluded from considera-

¹¹ Preston, J. T. Junior High Schools of Berkeley, Calif. United States Bureau (now Office) of Education Bulletin, 1923, No. 4, Ch. V.

tion. The educational problems of the South, because of its peculiar economic, social, and racial situation, demand separate study and investigation.

The field of this research is further narrowed by limiting the study to teachers in 3-year junior high schools. Since the 3-year unit has been accepted in theory and practice, it seems reasonable to suppose that this form of organization includes more of the features of the junior high school and thus represents the reorganized institution to an extent which is not true of the 2-year unit. The two upper years of the elementary school may be renamed junior high school without any attendant changes in curricula or other features. The same statement may be made, doubtless with a degree of truth in many cases, concerning the 3-year unit. However, since the latter normally require the grouping together of grades formerly included in the secondary as well as the elementary school, it is reasonable to suppose that such a realignment will more often be accompanied by significant changes in program and procedure. Other combinations of grades occur so infrequently that they may be disregarded.

The number of schools and teachers who cooperated in furnishing data for this study is indicated in Table 1. Reference to the table indicates that the schools are divided into two groups, those furnishing complete returns and those furnishing incomplete returns. In the first group have been placed only those schools from which a completed questionnaire was received for each teacher on the staff. The other schools failed to furnish questionnaires from 100 per cent of the members of the staffs. The schools are scattered over 27 States in the area included in this study. The large number of States represented discounts the effect of the policies of a particular department of education which might otherwise materially alter the results.

TABLE 1.—*Number of schools and teachers from whom returns were received*

	Number of schools	Number of teachers
Complete returns.....	20	341
Incomplete returns.....	65	1,011
Total.....	85	1,352

The total number of teachers on the staffs of the 85 schools is 2,217. The 1,352 teachers upon whom this study is based, therefore, represent 61.12 per cent of the total teaching force of the schools. In an effort to form some idea of the basis upon which this selection occurred, the teachers in schools furnishing only partial returns were compared with the group of teachers in the schools which furnished complete returns. (See Table 2.) When this was done it was found that the two groups were remarkably similar. For example, the median

number of years of training beyond high school is almost identical, differing only in the second decimal place. Approximately 60 per cent of the teachers in both groups hold the bachelor's degree. The percentages without degrees and with master's degrees are similar.

Of all the factors upon which the groups were compared the most significant difference seems to be in the total number of years of teaching experience. Teachers in schools which furnished only partial returns reported, as indicated by the median, approximately two years more experience than teachers in schools from which complete returns were received. This is probably partially explained by the fact that the larger schools are more likely to be included in the partial group since on the average it is easier to secure 100 per cent cooperation from a small than from a large group. The average size of staff in the group of schools from which a questionnaire was received from each teacher is 17. The corresponding figure for the schools which did not return complete data is 28. Larger school systems offering higher salaries and better conditions of work enroll on their staffs the more experienced teachers. Many large cities require several years of experience before a teacher is eligible for appointment. Therefore, it is not surprising that this difference in median number of years of teaching experience was found to exist.

TABLE 2.—*Teachers in schools which furnished complete returns compared on a number of significant items with those in schools which furnished only partial returns*

Item	Complete	Partial
Median number of years of training beyond high school.....	4.33	4.38
Percentage holding bachelor's degree only.....	58.00	60.00
Percentage holding master's degree.....	6.00	8.00
Percentage holding no degree.....	34.00	30.00
Median number of years of teaching experience.....	7.16	8.88
Median number of classes in the teachers' daily programs.....	4.65	4.94
Median number of extracurricular activities for which teachers are responsible.....	1.10	1.40
Percentage having responsibilities for guidance.....	77.00	78.00

The duties of the two groups in so far as they are reflected by the number of classes in the teachers' daily programs, the number of extracurricular activities which teachers supervise, and the extent to which teachers are assigned guidance responsibilities are much alike. With the exception already pointed out, the groups appear to be remarkably similar. For this reason they will be treated as a unit in this study.

The cause of the selection represented is still undetermined. Obviously not even the application of the most refined statistical procedures would ever reveal anything about the group of teachers who failed to complete the questionnaire form. The writer realizes that just here is introduced what is probably the greatest single source of error in most studies of this type—errors due to sampling.

Facing the fact that we are dealing with a group which is somewhat atypical, we must be prepared to interpret the findings as in all likelihood picturing the situation as it exists among junior high school teachers who are, as a group, somewhat better prepared for their work than is typically the case. It is necessary to examine the returns critically and to interpret the results in the light of the best judgment which can be made regarding the adequacy of the sample.

Throughout the following pages teachers are grouped according to the size of staff of the schools in which they are employed: Group I—more than 30; Group II—11-29; Group III—10 or fewer.

NUMBER OF SUBJECTS TEACHERS ARE REQUIRED TO TEACH

Fundamental to any consideration of the preparation of teachers is a survey of the duties which they are called upon to perform. Before the training which teachers possess can be evaluated, the requirements of the positions they fill must be known. One of the most fundamental factors in the teacher's work is the number of different subjects he is called upon to teach. Data relative to this situation are presented in Table 3.

Before considering this table it is necessary to agree upon the meaning of the term "subject." It was decided to follow the definition used by Hutson¹² in his study of the training of high-school teachers.

Table 3 is to be read as follows: Of the 780 teachers in Group I (schools with staffs of more than 30) 516, or 66.15 per cent, are teaching a single subject. The numbers and percentages of teachers teaching two, three, or more subjects are presented in a similar manner. Except in the smallest schools (Group III) a small proportion of teachers are called upon to teach more than three subjects. The fact that 19.16 per cent of the teachers in the smallest schools teach four or more subjects suggests at once the impossibility of adequate training for this group of teachers. Obviously as the number of fields in which a teacher must teach is increased the chance of securing as teachers in these positions individuals thoroughly trained in all the divisions of

¹² Hutson, P. W. *The Scholarship of Teachers in Secondary Schools*. New York, The Macmillan Co. 1927.

Hutson follows the lines of cleavage most common in the college of liberal arts. Since the present study deals with a grade level lower than the senior high school the subjects surveyed will differ somewhat from Hutson's list. For example, since spelling and penmanship are parts of the traditional content of grade included in the junior high school, these subjects are treated separately rather than grouped under the more general term "English." Throughout this study each one of the following has been regarded as a subject: English (literature, grammar, reading), spelling, penmanship, history, social sciences (unified courses), social studies such as civics), occupations, geography, mathematics, general science, nature study, agriculture, physiology (health and hygiene), biology, Latin, French, German, Spanish, general languages, commercial subjects, graphic arts, home economics, shop and mechanical drawing, music, and physical education.

The teacher of ancient and American history is, therefore, regarded as teaching a single subject, history. Likewise the teacher of arithmetic and algebra is regarded as teaching a single subject, mathematics.

subject matter which they must teach becomes more remote. Unfortunately the small number of cases in Group III forces us to be guarded in generalizations from these limited data. However, the fact that the data here presented are remarkably similar to the situation found by Koos and Woody¹³ in a study of the training of high-school teachers in the State of Washington, and are also similar to the facts developed by Hutson¹⁴ regarding high-school teachers in Pennsylvania and California suggests the hypothesis that within the secondary school the size of staff is a more important factor in determining the number of subjects assigned to a teacher than is grade level. Since, as will be indicated later in this study, teacher-training institutions do not prepare teachers for positions of such complexity; the fact that some teachers even in the larger junior high schools involved in this study are required to teach four or more subjects is to be deplored.

TABLE 3.—Distribution showing the number of different subjects teachers are teaching

Number of different subjects	Group I		Group II		Group III		Total	
	Number of teachers	Per cent of group	Number of teachers	Per cent of group	Number of teachers	Per cent of group	Number of teachers	Per cent of group
1	2	3	4	5	6	7	8	9
1.....	516	66.15	293	55.49	18	38.30	827	61.03
2.....	182	23.33	166	31.43	11	23.40	359	26.49
3.....	23	2.95	43	8.14	8	17.02	74	5.46
4.....	8	1.03	7	1.33	6	12.77	21	1.55
5.....	2	.26	2	.38	1	2.13	5	.37
6.....	1	.13					1	.07
7.....					1	2.13	1	.07
8.....					1	2.13	1	.07
No answer.....	48	6.15	17	3.22	1	2.13	66	4.87
Total.....	780	100.00	528	99.99	47	100.01	1,355	99.98

NUMBER OF SUBJECTS TEACHERS HAVE TAUGHT

On the questionnaire forms the teachers were asked to indicate not only the subjects they were teaching during the current year, but also to list other subjects they had taught in previous years. From this information Table 4 was derived. A brief study of the table will reveal the fact that from 30 to 36 per cent of the teachers have taught three or more subjects. It will be noticed that some teachers have taught as many as eight subjects. In one instance a teacher has taught nine subjects.

¹³ Koos, L. V., and Woody, Clifford. The Training of Teachers in the Accredited High Schools of the State of Washington. Eighteenth Yearbook of the National Society for the Study of Education.

¹⁴ Hutson, P. W. The Scholarship of Teachers in Secondary Schools. New York, The Macmillan Co., 1927.

These data indicate that many teachers must frequently change their teaching subjects. It is interesting to compare this situation with the two studies of the training of high-school teachers to which attention was drawn in the previous section. Koos and Woody found the percentage of teachers who had taught three or more subjects to be 57.3, 64.7, and 80.5 for Groups I, II, and III, respectively. Hutson, in his study of small schools corresponding to Group III, reports the percentage of Pennsylvania teachers who had taught three or more subjects as 78.1. The corresponding figure for the teachers in California schools was 82.5 per cent. The data developed in the present study would indicate considerable more stability in this regard in the junior high school. Nevertheless, further improvement may well be made at this level.

TABLE 4.—Percentage distribution showing the number of different subjects teachers have taught, including those they are now teaching

Number of different subjects	Group I		Group II		Group III		Group IV	
	Number of teachers	Per cent of group	Number of teachers	Per cent of group	Number of teachers	Per cent of group	Number of teachers	Per cent of group
1	2	3	4	5	6	7	8	9
1.....	301	38.59	106	31.44	13	27.68	480	35.41
2.....	187	23.97	141	26.70	4	8.51	332	24.50
3.....	121	15.51	84	15.91	12	25.53	217	16.01
4.....	64	8.21	54	10.23	8	17.02	126	9.30
5.....	35	4.49	35	6.63	1	2.13	71	5.29
6.....	10	1.28	9	1.70	2	4.26	21	1.55
7.....	6	.77	8	1.52	3	6.38	17	1.25
8.....	3	.38	4	.76	2	4.26	9	.68
9 or more.....			1	.19			1	.07
No answer.....	53	6.79	26	4.92	2	4.26	81	6.09
Total.....	780	99.99	528	100.00	47	100.01	1,355	99.99

NUMBER OF CLASSES ON THE TEACHERS' PROGRAMS

An important element of the teacher's task is the number of classes he is assigned to teach. The measure of this factor which is used in this study is the number of teaching periods per week on the teachers' programs. The week rather than the day was selected as the unit of time to be used in this case because of a number of subjects on the junior high school level which are scheduled to meet less often than daily. In some cases, too, more than five periods a week are devoted to a subject. Examples of the former which are found rather frequently are physical education or industrial arts. English may serve to illustrate the case in which a subject is scheduled oftener than one period a day.

Among the teachers canvassed the median number of class periods per week is 26.04. The data do not indicate much difference in the

number of class periods per week whether the teacher is employed in a large or a small school. Seventeen per cent of the teachers teach less than 20 periods per week. It may be stated that many of these are teachers who devote only a part of their time to teaching in the junior high school. One-fifth of the teachers have been assigned to 30 or more class periods per week. In terms of a 5-day week, this means an average daily load of six or more classes. When we consider the variety of extraclassroom demands which must be made upon the teachers' time if the junior high school is to perform the peculiar functions which have been assigned to it, we might well question the wisdom of demanding this amount of classroom work. Such excessive teaching loads need to be studied in terms of effect upon teaching efficiency and the adequate performance of the other duties of junior high school teachers. In view of the smaller number of teaching periods which is typical of junior high school teachers' programs as a whole, the burden of proof must be placed upon the school administrators to justify these teaching assignments. If training institutions are to raise the standards of the preparation which teachers bring to their work, educational administration must make it possible for teachers to apply this increased scholarship.

NUMBER OF DISTINCT PREPARATIONS IN THE TEACHERS' PROGRAMS

Another significant factor in teaching load is the number of preparations the teacher must make. In defining the term "subject" a list of 24 categories was presented. "Preparation" is used in the sense that any class which requires the study of a distinct body of material on the part of the teacher will account for an additional preparation irrespective of whether it occurs within the same subject group with another part of the teacher's program. For example, if a teacher is teaching seventh-grade mathematics and eighth-grade mathematics this program is regarded as representing two distinct preparations. For the most part these preparations are for classes which meet daily. In a few cases the classes meet fewer than five times a week. There are also a small number of courses meeting six or seven times each week.

Approximately one-fourth of the teachers in Group I and Group II, and one-half of the teachers in Group III are required to make four or more preparations. The medians also illustrate the tendency for the teachers in smaller schools to be required to make a larger number of preparations (Group I, 2.81; Group II, 2.75; Group III, 3.67). It is reasonable to suppose that a teacher will give greater thought and effort to a few preparations than he is able to give to a large number. It is difficult to see how even well-trained teachers burdened with excessive demands in this respect can make efficient use of the train-

ing they have acquired. Here again, administrative practice will have to function to reduce the burden placed upon many teachers, if the scholarship of the junior high school teachers is to be improved.

NUMBER AND CHARACTER OF THE SUBJECT COMBINATIONS BEING TAUGHT

The foregoing sections have developed the fact that teachers are frequently called upon to teach a variety of subjects. It is, then, of value to determine to what extent each of the various subjects is likely to appear in combination with other subjects. If it is found that certain combinations appear with great frequency, the teacher-training institutions can definitely prepare teachers for them. Table 5 portrays the extent to which the various subjects appear singly and in combination. The nonacademic subjects appear with much greater frequency to stand alone in the teachers' programs than do the academic subjects. English, mathematics, and general science are the only academic subjects which are found as single subjects in as many as 50 per cent of the cases. On the other hand every one of the non-academic subjects appears as a single subject on the programs of more than half of the teachers in each of these fields. The recent entry of these nonacademic subjects into secondary schools, the specialized nature of the content, and the requirements regarding the qualifications of teachers which have been set up along with the programs of State and national subsidy suggest themselves as explanations of the situation.

Examination of the column of 2-subject combinations reveals a greater percentage of appearance for the academic subjects other than the three which were mentioned as appearing frequently as single subjects. Even though this is the case, an inspection of the column showing 3-subject combinations makes it clear that a large majority of the academic subjects are frequently taught along with two additional subjects.

Five subjects (spelling, penmanship, geography, nature study, Spanish) occur frequently in combination with three or more additional subjects. These range from 12 to 22 per cent of the cases.

It is not contended that the ideal condition would be represented by a situation where the work of every teacher was confined to a single subject field. Such a situation in most schools is far beyond the possibilities of educational organization. Indeed, a case might be made against too excessive specialization. It may well be that there are certain naturally related subject combinations where the facility acquired by teaching in one field functions quite directly in the other. Such combinations as English and spelling, general science and biology, or French and general language may serve as examples. How

ever, it seems reasonable to suppose that the teachers who must teach in a large number of fields maintain teaching efficiency only with great difficulty.

TABLE 5.—*Distribution of the various junior high school subjects to show the extent to which they are taught singly and in combination*

Subject and group	Number of teachers	As a single subject		In a 2-subject combination		In a 3-subject combination		In a 4-subject combination		In a 5-subject combination		In a 6-subject combination	
		Frequency	Per cent	Frequency	Per cent	Frequency	Per cent	Frequency	Per cent	Frequency	Per cent	Frequency	Per cent
1	2	3	4	5	6	7	8	9	10	11	12	13	14
English.....	343	181	52.77	114	33.24	33	9.62	10	2.92	3	0.87	2	0.58
Spelling.....	45	6	13.33	17	37.78	15	33.33	3	6.67	2	4.44	2	4.44
Penmanship.....	40	4	10.00	19	47.50	10	25.00	3	7.50	3	7.50	1	2.50
History.....	179	46	25.70	97	54.19	22	12.29	11	6.15	1	.56	2	1.12
Social science.....	144	47	32.64	70	48.61	19	13.19	7	4.86			1	.69
Occupations.....	17	5	29.41	8	47.06	3	17.65	1	5.88				
Geography.....	108	23	21.30	52	48.15	20	18.52	11	10.19			2	1.85
Mathematics.....	256	143	55.86	84	32.81	23	8.98	6	1.95			1	.39
General science.....	109	54	49.54	35	32.11	13	11.93	6	5.50			1	.92
Nature study.....	9			1	11.11	6	66.67	2	22.22				
Agriculture.....	2			1	50.00	1	50.00						
Physiology.....	72	6	8.33	44	61.11	15	20.83	4	5.56	1	1.39	2	2.78
Biology.....	7	2	28.57	3	42.86	2	28.57						
Latin.....	62	12	19.35	33	53.23	14	22.58	2	3.23	1	1.61		
French.....	25	3	12.00	14	56.00	8	32.00						
German.....	2			1	50.00	1	50.00						
Spanish.....	17	3	17.65	9	52.94	2	11.76	2	11.76	1	5.88		
General language.....	15			10	66.67	4	26.67	1	6.67				
Commercial subjects.....	61	31	50.82	20	32.79	8	13.11	1	1.64	1	1.64		
Graphic arts.....	55	35	63.64	14	25.45	5	9.09			1	1.82		
Home economics.....	104	76	73.08	22	21.15	3	2.88	1	.96	1	.96	1	.96
Shop and mechanical drawing.....	100	85	85.00	14	14.00			1	1.00				
Music.....	53	36	67.92	13	24.53	3	5.66	1	1.89				
Physical education.....	75	41	54.67	29	38.67	5	6.67						

On the program of the teachers represented almost a third of the recurring 2-subject combinations occur only twice, just often enough to be called recurring. The only combinations which seem to be found with reasonable frequency are, with one or two exceptions, between a few subjects naturally related by content. (See Table 6.) For example, there is a tendency for the social subjects to be associated. (See History—Social science and History—Geography.) Another example of the same tendency is the frequency with which spelling is found associated with English. Some combinations appear frequently in less related fields.

All but three of the recurring 3-subject combinations occur only twice. Apparently little more than the chance demands of the local situation function in the making up of the programs of teachers who must teach three subjects. This situation is even more marked when 4-subject combinations are considered.

TABLE 6.—Two-subject combinations found to recur more than 10 times on the programs of junior high school teachers

Combinations:	Number of times each occurs
History—Social science.....	38
English—Latin.....	25
History—Geography.....	20
English—Mathematics.....	19
Mathematics—General science.....	18
Physiology—Physical education.....	18
English—History.....	16
English—Spelling.....	12

In order to investigate more at length the extent to which subjects appear in combination a tabulation was made of the frequency with which the different subjects occurred together on the teachers' programs. To illustrate, of the 236 frequencies with which subjects are combined with English, 17, or 7.2 per cent, are spelling, 16, or 6.7 per cent, are penmanship, and so on through the entire list of subjects found to occur with English. Such a tabulation was made for each of the subjects. Space does not permit the presentation of this material in detail, but according to the data at hand the teacher preparing for the subject indicated in Column I will most frequently be called upon to teach in addition one or more of the subjects appearing opposite in Column II. It must be borne in mind that these combinations represent the best predictions, but are far from representing all the combinations a teacher may be called upon to teach.

Column I	Column II
English.....	History, geography, mathematics, Latin.
Spelling.....	English, penmanship.
Penmanship.....	English, spelling.
History.....	Social science, occupations, geography, English, mathematics.
Social science.....	History, occupations, geography.
Geography.....	History, social science, occupations, English.
Mathematics.....	English, history, social science, geography, general science.
General science.....	Mathematics, physiology.
Physiology.....	Physical education, general science, home economics, geography.
Latin.....	English.
Commercial subjects.....	Mathematics, English.
Graphic arts.....	English, home economics, music, shop and mechanical drawing.
Home economics.....	Physiology, English, graphic arts, penmanship.
Shop and mechanical drawing.....	Mathematics, art.
Music.....	English, graphic art.
Physical education.....	Physiology, general science.

PREPARATION OF JUNIOR HIGH SCHOOL TEACHERS IN THE SUBJECTS WHICH THEY TEACH

As early as 1895 the Committee of Fifteen of the National Education Association stated that the scholarship required of secondary school teachers should not be less than a 4-year collegiate education.¹⁵ The Committee of Seventeen (1907) recommended that teachers should have specialized preparation in the subjects to be taught.¹⁶ More recently (1929) the North Central Association has ruled that teachers must teach in the fields of their major or minor specialization.¹⁷ None of these authorities clearly define what constitutes "specialization," although the North Central requirement describes a minor as consisting of a minimum of 10 semester hours. The definition of the major is presumably left to the college. In theory, at least, the need for specialized preparation for the subject taught has been recognized. The teachers canvassed in this study were requested to state according to subjects the number of semester hours of credit they had earned in higher institutions. By comparing these data with the subjects taught, it was possible to determine the specialized preparation of each teacher for the subject she was teaching.

PROPORTION OF TEACHERS WITHOUT SPECIAL PREPARATION

This information is summarized in Table 7. Turning attention to the column headed "Number without preparation," it will be noted that all but a very small proportion of teachers of English and history have received some training in these fields. Approximately a tenth of the mathematics teachers are without special preparation in mathematics. A third of the teachers of physiology have earned no credits in this subject in normal school or college. The situation in the foreign languages is much more satisfactory. Practically all the teachers of Latin, French, and Spanish have been prepared in these fields in higher institutions. Considering the so-called special or nonacademic subjects as a group, the number of teachers who report no training is surprisingly large. This is particularly true of the commercial subjects. In partial explanation of the fact that almost half of the teachers in this group are without preparation for the work, it may be pointed out that many of these individuals are teachers of academic subjects who have been assigned to teach a course such as commercial arithmetic or commercial geography. Approximately a sixth of the teachers reporting from the fields of graphic arts, home economics, and physical education have not been specially trained for

¹⁵ Proceedings of the National Education Association, 1895.

¹⁶ Proceedings of the National Education Association, 1907.

¹⁷ North Central Association Quarterly, June, 1929.

these subjects. One-seventh of the music teachers and almost one-eighth of the teachers of shop and mechanical drawing are similarly without preparation.

TABLE 7.—Semester hours of preparation in higher institutions for subjects taught by junior high school teachers

Subject	Number of teachers reporting	Number without preparation	Semester hours of preparation		
			First quartile	Median	Third quartile
1	2	3	4	5	6
English.....	294	4	14.18	26.75	36.73
History.....	158	4	10.63	19.88	30.84
Mathematics.....	227	23	5.05	11.26	21.91
Physiology.....	64	23	0	3.00	6.56
Latin.....	56	1	21.73	30.99	41.29
French.....	20	1	21.00	32.50	42.00
Spanish.....	12	1	9.00	18.99	24.99
Commercial subjects.....	55	25	0	3.50	27.44
Graphic arts.....	41	7	7.94	22.75	48.28
Home economics.....	94	15	17.20	34.43	47.63
Shop and mechanical drawing.....	76	9	12.99	37.55	50.71
Music.....	42	6	7.75	38.50	64.00
Physical education.....	64	10	10.00	23.62	40.75

PREPARATION OF TEACHERS FOR THE SUBJECTS TAUGHT

It is of interest to compare the quartiles and medians with the 10 semester hour requirement of the North Central Association. If the junior high school is to be regarded as an integral part of secondary education (both theory and practice as indicated by the recent growth of the 6-year secondary school suggest that it should be so regarded), surely the teachers in this division of the school system should meet at least the minimum standard established for teachers in the 4-year high school. Inspection of Table 7 shows that this standard is frequently not attained. For example, one-fourth of the teachers of mathematics have earned only half of the required number of semester hours. The preparation of a majority of the teachers of physiology and of commercial subjects is clearly inadequate. In evaluating the preparation of the teachers of commercial subjects it was found that they frequently specified a certain number of months spent in business college. Nine months of such training were counted as equivalent to 30 semester hours. Other amounts were entered in proportion.

Teachers of English and history appear to be somewhat better prepared, the median teacher having, respectively, two and one-half and two times the minimum number of semester hours specified by the North Central Association. However, even in these cases a fourth of the history teachers and a considerable number of English teachers fail to meet the requirement. The foreign languages show up to better advantage. However, in this connection the fact that credits in foreign languages completed in high school were counted in evalu-

ating the preparation of these teachers must be considered. Account was taken of the high-school units because higher institutions usually give credit for high-school work in languages. Two high-school units are commonly considered as equivalent to a year of college work. Hutson¹⁸ analyzed the freshman and sophomore courses in more than 100 standard colleges and universities. He determined that the modal practice in beginning language courses in college is to require four hours each semester. On this basis each high-school unit in this study is considered the equivalent of four semester hours.

More than a fourth of the teachers of music and of graphic arts could not qualify under the North Central standard. It will be noticed, however, that the median preparation in both these fields is high. Three-fourths of the teachers of physical education reporting had earned more than 10 semester hours in this subject. The preparation of teachers of home economics and of shop and mechanical drawing is more adequate, but even here a considerable minority have less than the standard under consideration.

EXTENT OF THE EDUCATION OF THESE JUNIOR HIGH SCHOOL TEACHERS

In connection with a study of the preparation of teachers for the subjects they teach, question naturally arises concerning the total amount of schooling the teachers possess. Is the meager preparation for their work which was found to be characteristic of many junior high school teachers due to the fact that the total number of years of education beyond high school is small or is the situation the result of unwise selection of courses over a longer period of training? Table 8 is a distribution of the 1,355 junior high school teachers canvassed in this study according to the number of years of training beyond high school. In computing the number of years of education account was taken of work completed in summer sessions. Thirty semester hours was assumed to constitute the equivalent of one year's work. Credits earned in summer schools were changed to equivalent fractions of a year in this proportion. Less than 2 per cent of these teachers have never attended a normal school or college. Thirty-two per cent have had less than four years of schooling beyond high school. There is a distinct mode at four years, 48 per cent possessing this amount of education. Nineteen per cent of the group have completed more than the number of years usually required for graduation from college. The size of the quartiles and median makes it a safe assumption that if the education of this group of teachers had been more intelligently planned and if the teaching assignments were made

¹⁸ Hutson, P. W. *The Scholarship of Teachers in Secondary Schools*. New York, The Macmillan Co., 1927.

in the light of the major and minor specializations these junior high schools could now be staffed with individuals much more adequately prepared for their work. Corroborating evidence is found in Table 9. More than two-thirds of the teachers possess the bachelor's degree or a more advanced degree.

TABLE 8.—*Distribution of teachers according to the number of years training beyond high school*

Number of years of training	Number of teachers							
	Group I		Group II		Group III		Total	
	Fre- quency	Per cent	Fre- quency	Per cent	Fre- quency	Per cent	Fre- quency	Per cent
1	2	3	4	5	6	7	8	9
High school only.....	15	1.92	8	1.52			23	1.79
1.....	25	3.21	12	2.27	1	2.13	38	2.96
2.....	94	12.05	71	13.45	14	29.79	179	13.23
3.....	88	11.28	92	17.42	5	10.64	185	13.05
4.....	374	47.95	256	48.48	19	40.43	649	47.90
5.....	41	5.28	55	10.42	3	6.38	169	12.67
6.....	30	3.85	14	2.65	2	4.26	46	3.50
7.....	14	1.79	7	1.33	1	2.13	22	1.62
8.....	13	1.67	3	.57			16	1.19
No answer.....	16	2.05	10	1.89	2	4.26	28	2.07
Total.....	780	100.00	528	100.00	47	100.02	1,355	100.00
Q ₁		3.65		3.42		2.73		3.30
Median.....		4.43		4.30		4.13		4.27
Q ₃		4.94		4.80		4.72		4.81

TABLE 9.—*Distribution of teachers according to highest degree held*

Highest degree held	Number of teachers							
	Group I		Group II		Group III		Total	
	Fre- quency	Per cent	Fre- quency	Per cent	Fre- quency	Per cent	Fre- quency	Per cent
1	2	3	4	5	6	7	8	9
No degree.....	240	30.75	164	31.06	23	48.94	427	31.81
A. B., B. S., or Ph. B.....	466	59.74	327	61.93	22	46.81	815	60.19
M. A.....	68	8.72	35	6.63	1	2.13	104	7.68
Ph. D.....	2	.26					2	.15
No answer.....	4	.51	2	.38	1	2.13	7	.52
Total.....	780	100.00	528	100.00	47	100.01	1,355	100.00

The teachers were classified according to the type of institution in which they received all or part of their training. (See Table 10.) Half of the teachers have come under the influence of the normal school or the teachers college, while more than 70 per cent have received some training in colleges and universities. The latter institutions contribute to the training of a larger proportion of junior high school teachers in spite of the fact which will be developed later that

both the college of liberal arts and the university have done less to provide special facilities for the preparation of teachers for the work in the junior high school than has the teachers college.

In several of the tables presented up to this point the teachers have been grouped according to the size of the staff of the schools in which they teach. Inspection of these tables indicates that teachers in large schools are not much more likely to be well prepared than are teachers in small schools. This may be due to the fact that in either group little attention is paid to the field of specialization in assigning teachers.

TABLE 10.—*Distribution of teachers according to the type of higher institution in which they received all or part of their training*

Type of institution	Number of teachers							
	Group I—770 teachers		Group II—523 teachers		Group III—46 teachers		Total—1,339 teachers	
	Frequency	Per cent	Frequency	Per cent	Frequency	Per cent	Frequency	Per cent
1	2	3	4	5	6	7	8	9
High school only.....	18	2.34	14	2.68			32	2.39
Normal school or teachers college.....	369	47.92	278	53.15	30	65.22	677	50.56
College or university.....	578	76.06	359	68.64	25	54.35	962	71.84

PROFESSIONAL PREPARATION OF JUNIOR HIGH SCHOOL TEACHERS

Aside from preparation in the content of the subjects taught, another element of primary importance in the education of teachers is the fund of professional knowledge which they bring to their tasks. The teachers were asked to indicate the courses in education which they had completed in normal school or college. Table 11 lists the courses which are a part of the training of a fourth or more of the teachers. When these courses are considered critically, it is easy to see how practice teaching, special methods (methods of teaching a particular subject), and introductory educational psychology can make large contributions toward more efficient teaching at any level of the school system. However, three courses which might be expected to contribute materially to important phases of the junior high school teachers' work are entirely lacking in the list of those most frequently occurring. The subjects referred to are guidance, extracurricular activities, and the psychology of adolescence. These courses are found in the training programs of 13, 15, and 21 per cent, respectively, of the teachers canvassed.

TABLE 11.—*Number and percentage of 1,164 teachers who have had each of certain courses in education in normal school or college*

Course	Number	Per cent	Course	Number	Per cent
1	2	3	1	2	3
History of education.....	934	80.24	Technique of high-school instruction..	398	34.19
Practice teaching.....	917	78.78	Philosophy of education.....	309	26.55
Special methods.....	836	71.82	Educational sociology.....	299	25.69
Introductory educational psychology..	812	69.78	Introduction to elementary education..	299	25.69
Introduction to secondary education..	628	53.95	Psychology of child development.....	287	24.65
Educational measurements.....	494	42.44	Mental tests.....	286	24.56
The junior high school.....	464	39.86			

As far as can be discerned from the frequency with which courses appear in the educational backgrounds of the teachers, the professional preparation of teachers in the smaller junior high schools seems to be as adequate as that of teachers in the large schools. For instance, the same five courses appear with greatest frequency on the programs of all three groups and in the same rank order. The only variation is the addition in Group III of educational sociology to the courses appearing on the training records of over half the teachers.

Among the courses found occurring frequently as part of the education of junior high school teachers was practice teaching. In general it is safe to assume that if this cadet teaching were done in a junior high school it would constitute more valuable training for the group concerned than if done in some other type of educational institution. When the teachers were distributed according to the types of schools in which they had done practice teaching, it was found that less than one-third of the group had had this experience in the junior high school. The first six grades of the elementary school and the senior high school have served as the practice grounds for the largest groups.

If the junior high school is adequately to meet the objectives which have been proposed for this school, the professional equipment of the teachers in training must be made superior to that of those now in service. Sixty per cent of the group have not had a general course dealing with the problems of the junior high school. This certainly does not suggest that the teachers have a grasp of the peculiar functions and features of the institution.

PROGRAMS OF HIGHER INSTITUTIONS FOR THE PREPARATION OF JUNIOR HIGH SCHOOL TEACHERS

If the teachers in the junior high school are to be well prepared for their work, the teacher-training agencies must provide curricula and courses which are designed to give the specific skills and knowledge requisite to teaching in the junior high school. Having surveyed the

programs of junior high school teachers and the background of subject matter and professional information which they possess, it is now in order to investigate the extent to which educational institutions are incorporating within their programs facilities for the preparation of teachers for this division of the school system.

A preliminary query might concern the proportion of the group of junior high school teachers who completed, in normal school or college, a curriculum definitely designed to prepare teachers for the junior high school. Approximately a fifth of the teachers report that their preparation included the completion of such a curriculum. (See Table 12.) Due to various conceptions as to what constitutes a curriculum "definitely designed to prepare teachers for the junior high school," these data must not be regarded as possessing a high degree of reliability. The results probably overstate the situation. It is safe to conclude that a small proportion of teachers now in service were subjected to a training program consciously directed toward preparing teachers for junior high school positions. Another bit of evidence confirming this conclusion is found in the fact, reported by Grinnell,¹⁰ that of 19 graduates of the University of Minnesota placed in junior high school positions by the Bureau of Recommendations of that institution from January to September, 1930, only two possessed special training for junior high school work.

TABLE 12.—Distribution of teachers according to whether or not in preparation for teaching they completed in a training institution a curriculum designed to prepare teachers for the junior high school

Preparation	Group I		Group II		Group III		Total	
	Number of teachers	Per cent	Number of teachers	Per cent	Number of teachers	Per cent	Number of teachers	Per cent
1	2	3	4	5	6	7	8	9
Completed a curriculum.....	142	18.21	109	20.64	11	23.40	262	19.34
Did not complete a curriculum.....	591	75.77	370	70.08	34	72.34	995	73.43
No answer.....	47	6.03	49	9.28	2	4.26	98	7.23
Total.....	780	100.01	528	100.00	47	100.00	1,355	100.00

In order to secure a more adequate estimate of the extent to which training institutions are making it possible for the teacher-in-training to secure a type of preparation specifically directed toward meeting the peculiar demands of junior high school teaching, recourse was had to an analysis of the catalogues of 25 normal schools, 74 teachers colleges, 66 universities, and 48 arts colleges in so far as they include material pertinent to the problem at hand. The bulletins were first surveyed

¹⁰ Grinnell, J. E. Securing Adequate Training for Junior High School Teachers. Educational Administration and Supervision, 17: 279-296.

to locate curricula which had been set up for the preparation of junior high school teachers. These curricula were then subjected to further examination to determine the relative emphasis upon courses and fields of education found in them.

The descriptions of content of courses appearing in each catalogue were carefully read to locate courses which purport to deal with some problem of the junior high school irrespective of whether such a course appears in a curriculum to be followed by prospective junior high school teachers.²⁰

CURRICULA FOR THE PREPARATION OF JUNIOR HIGH SCHOOL TEACHERS

The catalogues were examined to locate specialized curricula for prospective junior high school teachers. The results of this canvass are portrayed in Table 13. Greatest activity in this respect is found among the teachers colleges, 58 per cent of the bulletins examined containing one or more curricula. A fifth of the normal schools and a like number of universities outline junior high school curricula. No curricula were found in the catalogues of colleges of liberal arts.

TABLE 13.—*Number and percentage of institutions which have set up curricula for the preparation of junior high school teachers*

Type of institution	Total number of catalogues examined	Number of schools which have a curriculum	Per cent of total
1	2	3	4
Teachers colleges.....	74	43	58.1
Normal schools.....	25	5	20.0
Universities.....	66	13	19.7
Colleges of liberal arts.....	48	0	0

The curricula proposed for the preparation of junior high school teachers vary in length. The most frequent practice in normal schools is to set up a 2-year curriculum for this purpose. (See Table 14.) In teachers colleges and universities curricula four years in

²⁰ The terms "teachers college," "normal school," "college of liberal arts," and "university" as used in this study require specific definition.

Teachers colleges.—State-supported institutions for the preparation of teachers offering 4 or more years of work and granting degrees.

Normal schools.—Other State-supported institutions for the preparation of teachers.

Universities.—State universities and private schools and universities which maintain separate colleges or schools of education.

Colleges of liberal arts.—Institutions offering 4 or more years of work of collegiate grade which do not maintain separate colleges or schools of education.

The training institutions included in this study are located in 38 States and the District of Columbia. Normal schools are drawn from 11 States, teachers colleges from 26, arts colleges from 20, and all the commonwealths are represented among the universities. The bulletins used were recent issues, the majority containing announcements for the school years 1929-30 or 1930-31. Two of the catalogues of universities were for 1925-26, 12 for 1927-28, and 6 for 1928-29.

length are most often found, but in teachers colleges 2-year and 3-year programs also occur frequently. Owing to the small number of curricula found in normal schools these curricula throughout the remainder of this study are grouped with those in teachers colleges. Another measure of the length of the curricula is the number of semester hours included. The dominant practice is to require the completion of 60 to 69 semester hours in 2-year curricula, 90 to 99 semester hours in 3-year curricula, and 120 to 129 semester hours in 4-year curricula. This applies irrespective of the type of institution in which the curriculum is found.

ANALYSIS OF THE CONTENT OF THE CURRICULA

To obtain some idea of the content of these specialized curricula for the preparation of teachers for the junior high school, a distribution was made according to the number of semester hours represented by courses dealing with the junior high school, and by other courses in education. A course was classified as pertaining to the junior high school when this fact was indicated by the title or description of the course. In teachers colleges and universities it is a common practice to require the student to select a major and one or more minor subjects in academic fields or in subjects ordinarily taught in high school. The semester hours allotted to these majors and minors were classified with the academic subjects and do not enter into the classification of professional education courses. Of course, electives could not be classified. Courses pertaining specifically to the junior high school receive little recognition as measured by the number of semester hours allotted to them. In 2-year curricula found in teachers colleges and normal schools, already shown to average from 60 to 69 semester hours in length, less than 8 semester hours (median) are devoted to junior high school courses. Corresponding figures for 3-year and 4-year curricula are 9 and 11.4, respectively. The median number of semester hours in courses of this type in the 4-year curricula of universities is 15.63. Whether this constitutes sufficient recognition of the problems peculiar to the junior high school depends upon the extent to which the knowledge and skill required in junior high school teaching may be found to differ from that fundamental to the performance of the teacher's duties on the elementary or senior high school level.

Education courses commonly appear as required courses. Of course, the provision for free electives (median) varying from 5 semester hours in 2-year curricula to 12.5 semester hours in 4-year curricula in teachers colleges, permits a student to vary this professional side of his training if he so desires. Students are allowed considerably more leeway in the case of academic subjects as shown by the fact that a substantial proportion of this group of courses occurs among the va-

riables. The medians show that 8.8 semester hours of the academic work in 2-year curricula is of variable nature. This amount rises to 17.5 in 3-year curricula and to 37.9 in 4-year curricula. Similarly tendencies both in the direction of listing education courses as required courses and in permitting larger variation in the selection of academic work were found characteristic of the 4-year curricula in universities.

TABLE 14.—*Distribution, according to the length of the course, of the curricula for the preparation of junior high school teachers*

Length of course	Frequency			
	Normal schools	Teachers colleges	Colleges of liberal arts	Universities
1	2	3	4	5
1 year.....	0	1	0	0
2 years.....	4	11	0	2
3 years.....	0	12	0	2
4 years.....	1	29	0	10
5 years.....	0	0	0	1
Total.....	5	53	0	15

COURSES FOUND IN THE CURRICULA FOR THE PREPARATION OF JUNIOR HIGH SCHOOL TEACHERS

Examination of the curricula of the teachers colleges revealed the fact that the academic or preeducation courses receiving greatest emphasis may be classified into three fields: English, social studies, and health education. Mathematics and science, two departments of learning which might be expected to receive large recognition in a period of general training, occur much less frequently. Biology and general science are the only sciences, aside from the scientific aspects of health education, found within the 15 most frequently recurring courses. Art and music receive frequent recognition.

A similar review of courses in curricula set up by universities indicates that in general there is rather striking similarity in relative emphasis among the academic courses between these curricula and those just examined.

The main concern of this study, however, is not this academic content but the provisions for professional training contained in the curricula. That the curricula offered by teachers colleges and universities emphasize the same professional education courses is evident by a glance at Table 15. The first four courses ranked on the basis of frequency are identical in each institution, differing only slightly in rank order. Eight of the 10 courses appearing with greatest frequency in curricula outlined by universities also are found among the 10 most frequently occurring courses in curricula proposed by teachers colleges.

TABLE 15.—Professional education courses appearing most frequently in curricula for the preparation of junior high school teachers

Course	Teachers colleges and normal schools (58 curricula)				Universities (15 curricula)			
	Frequency	Rank	Average credit	Total credit	Frequency	Rank	Average credit	Total credit
1	2	3	4	5	6	7	8	9
Practice teaching.....	41	1	8.5	348	8	2	6.0	48
Educational psychology.....	33	2	3.4	113	9	1	3.1	28
Introduction to education.....	28	3	2.5	69	7	3.5	2.9	20
History of education.....	23	4	2.8	65	7	3.5	3.1	22
Educational tests and measurements.....	22	5.5	2.6	58	5	5.5	2.2	11
General methods.....	22	5.5	2.6	57	4	8	3.0	12
Principles of secondary education.....	21	7	2.9	61	4	8	3.5	14
Junior high school.....	15	8	3.1	47	5	5.5	3.8	19
Psychology of adolescence.....	10	9	2.8	28				
Guidance.....	8	10.5	3.0	24	2	13.5	2.0	4
Junior high school administration.....	8	10.5	2.9	23	1	20.5	3.0	3
Observation.....	3	17.5	1.7	5	4	8	3.3	13
Methods of teaching junior high school geography.....					3	10.5	3.3	10
Methods of teaching the major subject.....					3	10.5	2.3	70

¹ Ranks shown in this table give the relative position of the selected courses in the complete list of courses presented in the original tabulations.

To present a clearer view of the type of professional training provided by these specialized curricula the courses which compose them were classified according to fields of education. Table 16 is read as follows: The total frequency of appearance in teachers colleges of courses dealing with methods of teaching is 90, the total in this category is 462 semester hours which is 44.85 per cent of the combined total of all courses.

TABLE 16.—Relative emphasis upon certain fields of education in the curricula for the preparation of junior high school teachers

Category	Teachers colleges			Universities		
	Number of courses	Total credit	Per cent of total	Number of courses	Total credit	Per cent of total
1	2	3	4	5	6	7
Methods of teaching.....	90	462	44.85	31	115	45.45
Organization and administration.....	80	222	21.55	17	56	22.13
Educational psychology.....	70	213	20.68	17	47	18.68
History of education.....	24	68	6.60	7	22	8.70
Guidance.....	8	24	2.33	2	4	1.68
Curriculum.....	6	13	1.26	0	0	0
Philosophy of education.....	3	8	.78	0	0	0
Supervision.....	1	2	.19	2	6	2.37
Content of teaching subjects.....	1	2	.19	0	0	0
Extracurricular activities.....	1	2	.19	0	0	0
Educational sociology.....	1	2	.19	0	0	0
Miscellaneous.....	5	12	1.17	1	3	1.19
Total.....	290	1,030	99.98	77	253	100.00

The fields of education receiving most stress in curricula contained in the programs of normal schools and teachers colleges in order of

declining emphasis are: Methods of teaching, organization and administration, and educational psychology. These three categories account for 87 per cent of the semester hours represented by the total of all the courses.

In the curricula outlined by universities the same three fields of education; Methods, administration, and educational psychology again come in for major emphasis and in the same relative order. The percentages of total credit devoted to each are almost identical in the two types of institutions.

COURSES PURPORTING TO DEAL WITH SOME PHASE OF THE JUNIOR HIGH SCHOOL

Manifestly, many institutions which have not developed a specialized curriculum for junior high school teachers include within their programs courses which deal with problems and features peculiar to the junior high school. To locate such courses the sections of the bulletins containing the descriptions of courses were carefully read. The method followed consisted in first examining 10 bulletins selected on the basis of number and variety of courses. Courses which the catalogue portrayed, either by title or description, as dealing with a problem or problems related to the junior high school were taken from the first bulletin, and the items of description recorded in such a way as to keep track of the frequency of each item. The descriptions of the content of courses in the second school were compared to the descriptions of the content of the courses at the first institution. Where the items of the description coincided in meaning, not necessarily in exact wording, in about two-thirds or more of the content the courses were classified together and the items of description added to those of the first school. The same procedure was followed in checking the bulletins of the other eight institutions. Thus was obtained a composite description of courses against which the other bulletins could be checked. The remaining 203 bulletins involved in this study were then carefully read and courses dealing with the junior high school classified in terms of the composite descriptions. Additional courses, with low frequencies, were discovered as the checking proceeded. These courses were added to the original list.

The teachers colleges were found to be most active in preparing junior high school teachers. This type of institution exceeds the others both in total number of courses which deal with the junior high school and in average number of courses per school. (See Table 17.) The other types ranked on the basis of activity as measured by this criterion stand in order of declining activity as follows: Universities, normal schools, colleges of liberal arts.

TABLE 17.—*Relative activity of teachers colleges, normal schools, universities, and colleges of liberal arts in the preparation of junior high school teachers as indicated by the number of courses per school purporting to deal with some phase of the junior high school*

Type of institution	Number of schools	Number of courses dealing with the junior high school	Number of courses per school
1	2	3	4
Teachers colleges.....	74	441	5.96
Normal schools.....	25	47	1.88
Universities.....	66	185	2.80
Colleges of liberal arts.....	48	32	.67

In order to determine the fields of education most emphasized, the courses secured by this examination of bulletins were classified as had been done with the courses found in the specialized curricula. The two fields "methods of teaching" and "organization and administration" receive most emphasis in each type of training institution. (See Tables 18 and 19.) Courses dealing with the content of teaching subjects as applied to the junior high school occur frequently in teachers colleges and normal schools, but occupy a much less prominent place in the programs of universities and arts colleges.

It may be concluded from the foregoing analysis of courses purporting to deal with some phase or phases of the junior high school problem as well as from the survey of the curricula set up by training institutions that the programs of the various types of institutions, teachers colleges, normal schools, arts colleges, and universities are similar in emphasis, differing chiefly in the fact that teachers colleges provide facilities specifically for the preparation of junior high school teachers much more frequently than do the other institutions and that they offer a greater variety of professional courses. Colleges of liberal arts are particularly backward in the recognition of the need of specifically training teachers for the junior high school.

PRACTICES IN THE CERTIFICATION OF JUNIOR HIGH SCHOOL TEACHERS

An important factor in any program for the improvement of the quality of preparation which junior high school teachers bring to their work is the certifying authority of the States. A letter was addressed to the department of education in each of the 48 States requesting copies of the most recent regulations governing the certification of teachers. This material was supplied by each of the Commonwealths.

TABLE 18.—*Classification of courses in teachers colleges and normal schools dealing with some phase of the junior high school according to fields of education*

Category	Teachers colleges			Normal schools		
	Num-ber of courses	Total credit	Per cent of total	Num-ber of courses	Total credit	Per cent of total
1	2	3	4	5	6	7
Methods of teaching.....	241	798.2	70.79	32	83.2	71.7
Organization and administration.....	56	142.1	12.60	5	12.2	10.3
Content of teaching subjects.....	40	97.8	8.67	7	16.5	14.3
Educational psychology.....	18	46.0	4.08	0	0	0
Curriculum.....	8	18.6	1.65	0	0	0
Guidance.....	6	13.2	1.17	1	2.0	1.7
Extracurricular activities.....	3	5.0	.44	1	2.0	1.7
History of education.....	2	4.6	.41	0	0	0
Supervision.....	1	2.0	.18	0	0	0
Philosophy of education.....	0	0	0	0	0	0
Total.....	375	1,127.5	99.99	46	118.9	100.0

TABLE 19.—*Classification of courses in universities and colleges of liberal arts dealing with some phase of the junior high school according to fields of education*

Category	Universities			Arts colleges		
	Num-ber of courses	Total credit	Per cent of total	Num-ber of courses	Total credit	Per cent of total
1	2	3	4	5	6	7
Methods of teaching.....	81	223.9	54.86	13	35.0	44.0
Organization and administration.....	40	101.6	25.80	10	26.0	32.0
Content of teaching subjects.....	2	4.0	1.02	1	2.0	2.6
Educational psychology.....	7	17.0	4.33	1	3.0	4.0
Curriculum.....	6	11.3	2.89	0	0	0
Guidance.....	5	10.0	2.54	0	0	0
Extracurricular activities.....	5	12.0	3.05	1	3.0	4.0
History of education.....	2	4.0	1.02	0	0	0
Supervision.....	3	8.0	2.03	1	3.0	4.0
Philosophy of education.....	1	2.0	.51	0	0	0
Total.....	182	393.8	100.04	27	75.0	100.0

In many of the States certain general requirements such as age, citizenship, moral character, have been set up which are prerequisites to qualification for any grade of certificate. These general regulations have not been accorded specific treatment in the present study. The problem of interpreting the certification requirements is rendered difficult due to the many varying types of certificates issued in some States. Examples may be cited where certificates are issued by county superintendent—Arkansas and Idaho; Normal schools—Idaho, Kentucky, and New Jersey; and even by the local school districts—New Jersey; as well as by the State. Changes in the certification laws have frequently been accompanied by special provisions regarding the renewal and validity of certificates granted prior to the passage of the law—Virginia and Indiana. Some States issue a variety of

certificates granting the right to teach in the same school grades but valid for different periods—Missouri and North Dakota. The issuance of permits and temporary certificates—Maine, Montana, and New Hampshire—of varying types further complicates the situation. In some instances teachers of "special" subjects—Colorado, Montana, New Hampshire, and New York—such as industrial, education, music, or home economics are certified upon a basis differing from that set up for "regular" or academic teachers. In certain States prospective teachers lacking sufficient formal education may be certified on the basis of examination.

This study is limited to certificates which meet the following requirements: (1) The certificate is issued by the State department of education. (2) It is based upon completion of a specified amount of work in a training institution. (3) Previous teaching experience is not a requirement for the issuance of the certificate. (4) Special certificates which certify teachers in nonacademic subjects only are not included.

JUNIOR HIGH SCHOOL CERTIFICATES

Nine States issue a certificate distinct from the elementary or secondary school certificates and specifically designated as a junior high school certificate. These States are Arkansas, California, Connecticut, Indiana, Kansas, Maine, Nevada, New Mexico, and Utah.

Table 20 presents material relative to these certificates. The most frequent practice is to require two years of training beyond the 4-year high school. Five States specify this amount. No States issue certificates based upon less than two years of higher education. Two States demand three years and two States a full 4-year course. All of the States specify a minimum number of semester hours in professional education as a condition upon which the junior high school credential is granted. These requirements range from "one 6-weeks' course" in Maine to 18 semester hours in California and Utah.

As part of this minimum requirement in professional education certain courses are specifically required. Practice teaching, general methods, and educational psychology are the courses most frequently specified.

It is of interest to note the number of years for which the first junior high school certificate is valid. (See Table 20.) In four States the certificate expires at the end of three years. Three States grant the certificate for five years. In two States the license is limited to two years. In each case the certificate may be renewed upon evidence of successful teaching experience and a number of semester hours of training in a university or teachers college.

AMOUNT OF PREPARATION REQUIRED TO TEACH IN JUNIOR HIGH SCHOOLS IN STATES WHICH DO NOT ISSUE A JUNIOR HIGH SCHOOL CERTIFICATE

The amount of preparation required to qualify to teach in the junior high schools of States which do not issue junior high school certificates merits investigation. Table 21 shows a distribution of the 39 States which do not certify teachers specifically for the junior high school according to the minimum number of years of training beyond the 4-year high school necessary to satisfy requirements for certificates which will enable the teacher to teach in all grades of a 3-year junior high school. In a majority of these States two years beyond high school will make a teacher eligible for work in grades 7, 8, and 9. In 12 States four years of preparation in higher institutions is required. Only a single State grants this privilege to those with one year of preparation. Five States require three years. It is clear that the dominant practice is to specify two or four years beyond high school as a minimum.

TABLE 20.—*Training required to qualify for a junior high-school certificate and the number of years for which this certificate is valid without renewal*

State	Number of years of preparation beyond 4-year high school	Minimum number of semester hours in education	Number of years for which the certificate is valid	State	Number of years of preparation beyond 4-year high school	Minimum number of semester hours in education	Number of years for which the certificate is valid
1	2	3	4	1	2	3	4
Arkansas.....	2	12	3	Maine.....	2	(1)	3
California.....	4	18	2	New Mexico.....	4	16	3
Connecticut.....	4	6	3	Nevada.....	2	10	3
Indiana.....	3	15	5	Utah.....	3	18	3
Kansas.....	2	9	3				

¹ One 6-weeks' course in theory and practice of junior high school education.

TABLE 21.—*Distribution of States not issuing a junior high school certificate according to the minimum number of years of preparation beyond the 4-year high school required to qualify for a certificate valid in all grades of a 3-year junior high school*

ONE YEAR.—Texas.¹¹

TWO YEARS.—Colorado, Florida, Georgia, Idaho, Illinois, Iowa, Kentucky, Louisiana, Michigan, Mississippi, Montana, Nebraska, North Dakota, Oklahoma, Oregon, Pennsylvania, South Dakota, Tennessee, Vermont, West Virginia, Wisconsin.

THREE YEARS.—Alabama, Arizona, New Hampshire, New Jersey, Washington.

FOUR YEARS.—Delaware, Maryland, Massachusetts, Minnesota, Missouri, New York, North Carolina, Ohio, Rhode Island, South Carolina, Virginia, Wyoming.

¹¹ The requirement is "30 semester hours." This is here evaluated as 1 year's work on the basis of 30 semester hours constituting a normal load.

PRACTICES OF LOCAL COMMUNITIES IN SELECTING AND ADMINISTERING THE JUNIOR HIGH SCHOOL PERSONNEL

The preparation of the teachers, their continued growth in service, and consequently much of the success of the junior high school is directly conditioned by the policies and practices of local communities in selecting and administering the junior high school personnel. From what sources are the teachers recruited? What backgrounds of experience do they bring to their tasks? What are the educational qualifications demanded of applicants for positions? Are teachers who continue in service required to attain a standard higher than that prescribed for beginning teachers? These are some of the questions treated in the present discussion.

TABLE 22.—Distribution of 1,355 junior high school teachers according to the sources from which they were recruited

Source	3-year schools							
	Group I		Group II		Group III		Total	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
1	2	3	4	5	6	7	8	9
Teaching in another type of school in the same system.....	235	30.13	137	25.95	11	23.40	383	28.27
Teaching in another school system.....	243	31.15	197	37.31	16	34.04	456	33.65
Students in a training institution.....	182	23.33	121	22.92	14	29.79	317	23.39
Business and clerical occupations.....	7	.90	7	1.33	0	0	14	1.03
Substituting.....	9	1.15	5	.95	1	2.13	15	1.11
Teaching in a private secondary school.....	2	.26	1	.19	0	0	3	.22
Teaching in a college.....	3	.38	1	.19	0	0	4	.30
Industrial occupations.....	6	.77	0	0	0	0	6	.44
Library work.....	0	0	0	0	0	0	0	0
No answer.....	93	11.92	59	11.17	5	10.64	157	11.59
Total.....	780	99.99	523	100.01	47	100.00	1,355	100.00

SOURCES FROM WHICH TEACHERS WERE RECRUITED

Table 22 shows the distribution of junior high school teachers according to the sources from which they were recruited. More than three-fifths of the teachers canvassed were engaged in teaching at the time of appointment to their present positions. Transfer to the junior high school from another type of school in the same system accounts for 28 per cent of this group, while 33 per cent were recruited from schools outside the local community. That employing officials in the schools represented are more reluctant to engage as teachers those without teaching experience is indicated by the fact that less than a fourth were drawn directly from the training institutions. A few teachers were recruited from private secondary schools or from colleges and a small number from business and industrial pursuits.

BACKGROUND OF EXPERIENCE POSSESSED BY JUNIOR HIGH SCHOOL TEACHERS

What background of experience do junior high school teachers bring to their tasks? One answer to this query appears in Table 23. Assuming that the type of experience which a teacher has had will influence materially his attitudes toward the problems peculiar to the junior high school and his performance as a junior high school teacher, the future development of the institution might easily be turned in the direction of elementary education or of secondary education depending upon the previous contacts of the teachers recruited. Apparently there is no tendency for employing officials to select teachers predominantly from either the elementary or the high school. Considering the fact that the junior high school properly represents a transitional unit between elementary and secondary education, the situation here revealed, a generous recognition of both institutions in the backgrounds of the teachers would seem desirable.

TABLE 23.—*Distribution of 1,355 teachers according to the types of schools in which they have taught*

Type of school	Rank	Number of teachers	Per cent of total
1	2	3	4
Elementary school (grades 1-6).....	1	520	38.4
Senior or 4-year high school.....	2	508	37.5
Elementary school (grades 7-8).....	3	467	34.4
Rural schools.....	4	293	21.6
Higher institutions.....	5	39	2.9
Private secondary schools.....	6	28	2.1
Supervisory work.....	7	16	1.2
Administrative work.....	8	6	.5
No answer.....		41	3.0

Other questions of interest in considering the background of experience of the junior high school teachers are the total number of years of teaching experience and the number of years which they have spent in junior high school teaching positions. The medians indicate that the average teacher has taught for approximately eight and two-thirds years, four years of which have been spent in the junior high school.

QUALIFICATIONS DEMANDED BY LOCAL COMMUNITIES

To study the requirements which the local communities have set up to govern the employment of junior high school teachers, an inquiry blank was sent to the principals of the same junior high schools whose teachers had been asked to cooperate in the investigation which forms the major part of the present study. In addition to the principal of the 85 schools from which cooperation of the teachers was secured, 26 principals returned completed blanks even though it was not convenient for the other members of the staffs to take part in the

study. The data from these blanks have been treated together with the original 85 schools, bringing the total to 111.

In the majority of these 111 schools four years of training beyond high school are required to qualify an applicant for a teaching position. No schools will employ teachers who have had as little as one year in a teacher-training institution. Approximately a sixth of the schools have set up two years as the minimum requirement. Only four schools demand more than four years of training beyond a 4-year high school. The most usual practice is to require the bachelor's degree as prerequisite to appointment to a junior high school position; however, more than a fourth of the schools will employ teachers lacking degrees. The master's degree is rarely required.

The principals of 31 of the 111 schools indicated that they demanded of applicants a specified minimum number of semester hours of preparation in the subject or subjects to be taught. The median requirement is 18 semester hours. It will be recalled that this figure is well above the minimum requirement of 10 semester hours set up by the North Central Association.

Approximately 30 per cent of the schools state that they will employ only experienced teachers. Only in rare instances is the type of school in which this experience must be gained designated. Two years of previous teaching experience is most frequently specified. About one-fifth of the schools require this amount.

In developing standards which must be met by applicants for junior high school positions, many schools have simply extended existing requirements for prospective elementary or secondary school teachers to cover the intermediate school. The requirements of half of the schools are identical with those for the senior high school and a fifth are identical with those of the elementary school. The fact that the junior high school is quite generally regarded as an integral part of the secondary school as well as the recent widespread development of the 6-year secondary school would lend support to the former group.

HIGHER STANDARDS FOR TEACHERS WHO CONTINUE IN SERVICE AND MEANS OF ENCOURAGING PROFESSIONAL GROWTH

Are teachers who continue in service in the junior high schools unvassed in this study required to continue to advance professionally and to attain a standard higher than that required of beginning teachers? An answer to this question may be found in Table 24.

A policy of demanding continued professional growth on the part of the staff will be largely ineffective unless means to encourage the meeting of the higher standards are developed. Table 25 presents the methods by which the schools which have set up the advanced requirements attempt to secure their attainment.

TABLE 24.—*Distribution of schools according to the types of requirements set up to provide for the professional advancement of junior high school teachers who continue in service*

Requirement	Group I (47 schools)		Group II (52 schools)		Group III (12 schools)		Total (111 schools)	
	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent
1	2	3	4	5	6	7	8	9
Expect teachers who continue in service to attain a higher standard than that required of beginning teachers.....	30	63.83	43	82.69	10	83.33	83	74.77
Do not expect teachers who continue in service to attain a higher standard.....	6	12.77	1	1.92	0	0	7	6.21
Requirements for a higher standard:								
Summer session.....	30	63.83	35	67.31	10	83.33	75	67.57
Professional reading.....	12	25.53	16	30.77	1	8.33	29	26.19
Secure A. B. degree.....	6	12.77	11	21.15	2	16.67	19	17.12
Secure M. A. degree.....	4	8.51	5	9.62	0	0	9	8.11
Extension courses.....	4	8.51	4	7.69	0	0	8	7.21
Other.....	1	2.13	3	5.77	0	0	4	3.60
No answer.....	11	23.40	8	15.38	2	16.67	21	18.92

TABLE 25.—*Distribution of schools according to the means employed to encourage the meeting of standards required of junior high school teachers who continue in service*

Means employed	Group I (30 schools)		Group II (43 schools)		Group III (10 schools)		Total (83 schools)	
	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent
1	2	3	4	5	6	7	8	9
Salary increase.....	28	86.67	29	67.44	7	70.00	62	74.70
Personnel office.....	3	10.00	2	4.65	0	0	5	6.02
Conferences.....	16	53.33	22	51.16	5	50.00	43	51.55
Faculty meetings.....	17	56.67	22	51.16	7	70.00	46	55.43
Supervise work of teachers.....	23	76.67	25	58.14	9	90.00	57	68.67
Publish regulations.....	6	20.00	10	23.26	1	10.00	17	20.48
Other.....	0	0	3	6.98	0	0	3	3.61
No answer.....	2	6.67	6	13.95	2	20.00	10	12.05

CONCLUDING COMMENT

Certain generalizations may be drawn from the facts which have been presented in the foregoing pages. The following comments are offered only as inferences and implications. The writer realizes that they are subject to errors of interpretation.

1. Junior high school teachers are frequently given teaching assignments which make efficient teaching exceedingly difficult. This is especially true of the situation in the smaller schools. In support of this statement the following findings may be recalled. A considerable proportion of the teachers must teach for an excessive number of class periods each week. Many teachers are handling programs including three or more different subject fields. When account is

taken of the number of subjects which teachers have taught it is even more evident that they have been assigned to subjects for which they lack adequate preparation. The same situation is revealed when the number of preparations which teachers are required to make is considered. The fact that very few frequently recurring subject combinations were found offers further testimony to the fact that teachers are frequently assigned to programs for which they are not prepared.

2. The specialized training of junior high school teachers for the subjects which they teach, as measured by number of semester hours of preparation in college or normal school, is frequently inadequate. This statement is justified whether the minimum preparation of 10 semester-hours suggested by the North Central Association or the requirements of States which certify by subject is used as a standard. The amount and type of preparation either in subject matter or in professional education which these junior high school teachers were found to possess does not indicate that the junior high schools are manned by staffs of teachers trained to cope with the problems of the institution in such fashion that the objectives of the junior high school may be achieved. Objective evidence of the extent to which the junior high school is attaining the purposes which have been posited for it is scanty. If further investigation of this problem should indicate that the objectives are being met, something other than the specialized preparation of the teachers must be responsible for the results.

3. Teacher-training institutions are offering training facilities for junior high school teachers but these facilities in many cases need to be revised and extended. Shortness of schooling is not the primary cause of inadequacies of training which are found to exist. Evidence from the preparation of teachers now in service as well as from a survey of catalogues of schools and colleges indicates the necessity for a realignment of the courses receiving most stress as well as the development of junior high school laboratory schools in which student teaching might be more definitely related to problems peculiar to the institution. Universities have lagged behind teachers colleges in providing facilities for the preparation of junior high school teachers when measured by the number of institutions which have set up curricula for the training of this group of teachers, or by the average number of courses dealing with some phase or problem of the junior high school.

On the other hand, the question may well be raised as to whether the training agencies should develop specialized curricula designed to prepare teachers for grades 7, 8, and 9. Perhaps curricula for the preparation of teachers for the 6-year secondary school, grades 7 to 12, would be more feasible, or again, experimentation may prove a different alignment of grades to be more satisfactory. In any event most graduates secure their first positions in communities where the

small school population necessitates an organization in which teachers must teach in grades above or below those commonly regarded as properly included in the junior high school. This situation would seem to suggest a more general type of training for the undergraduate. The specialized preparation for the junior high school, or at least many elements of it, would then become a part of the in-service education of teachers. Thus teachers attracted to grades 7, 8, and 9 might fit themselves for positions in segregated junior high schools in the larger population centers.

4. The certification requirements of the various States show a failure to recognize the necessity for specialized preparation for the junior high school. Only nine States issue a certificate designed especially for this division of the school system. This raises the question of the desirability of an exclusively junior high school certificate. If the junior high school movement is to extend into small communities, a 6-year secondary school certificate recognizing the peculiar demands of both the junior and the senior division would seem more useful.

5. If the present tendency to align the junior high school with secondary education is to persist, teachers in the junior high school should possess training equivalent in amount and quality to that now commonly demanded of senior high school teachers. The majority of the junior high schools canvassed require four years of training beyond high school and the bachelor's degree for appointment. However, more than a fourth of the schools still employ teachers without degrees. The prescription of a minimum number of semester hours of preparation in the teaching subject should be encouraged. The requirements of half of the schools are identical with those for the senior high school.

In closing the writer offers the following general suggestions as possible remedies for some of the inadequacies which have been revealed.

1. The number of small schools, whether junior or senior high schools, should be reduced. The smaller the school the more unsatisfactory is the teacher's program.

2. Junior high school teachers should be trained in at least two, possibly three, subjects, and certain well-defined subject combinations should be developed. This will necessitate cooperation between the State certifying agencies, the teacher-training institutions, and the local school administrators.

3. Certification laws should recognize the need for preparation for the junior high school by providing junior high school certificates or, preferably, junior-senior (6-year) high school certificates. Certification by subject and preparation for the guidance and extracurricular responsibilities of junior high school teachers should be characteristic of these credentials.

4. Teacher training institutions must develop functional curricula for the preparation of junior high school teachers based upon the duties which this group of teachers are called upon to perform and formulated in the light of the peculiar functions of the junior high school. These training provisions may need to take the form of in-service preparation of teachers. Facilities should then be provided in extension courses, summer sessions, and late-afternoon classes.

5. Local communities should develop standards of selection which will insure the employment of teachers properly trained for the junior high school and the assignment of these teachers to programs for which they are fitted.

6. The use of a variety of means to insure the continued professional growth of teachers who remain in service is essential. The teacher must be encouraged to study his problems and the administration must seek to guide this study and insure its application in the schools. Reliance upon the salary schedule to motivate this growth is apparently ineffective.